ART. 20. FOSSIL AMPHIBIANS AND REPTILES OF FRANKSTOWN CAVE, PENNSYLVANIA

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In 1926 Peterson reported on the Pleistocene fossils recovered from Frankstown Cave, located in Blair County, Pennsylvania (for a description of this cave and bone deposit see Holland, 1908, and Peterson, 1926). In studying Pleistocene reptile remains that are currently being recovered from a sinkhole near New Paris, Bedford County, Pennsylvania, (see Guilday and Bender, 1958), it was necessary to restudy the amphibian and reptile material from Frankstown Cave. The two sites are approximately 30 miles apart in the same valley.

Peterson recognized six families and six genera of amphibians and reptiles. A re-examination of the material discloses that two of these families are not present. The bones that Peterson referred to *Cryptobranchus* and *Eumeces* were misidentified; neither genus is represented in this material. It is now possible to recognize at least seven genera of snakes, including the one listed by Peterson. With the present additions and corrections, the list of amphibians and reptiles of Frankstown Cave includes seven families and 13 genera. The nature of the material does not permit specific identification; the one exception is a portion of the plastron of a wood turtle that is distinctive.

These specimens are all in the collections of the Section of Vertebrate Fossils of Carnegie Museum.

CLASS: AMPHIBIA

Order: CAUDATA

Family: Plethodontidae

Genus ?

Cryptobranchus, Peterson 1926, p. 251 (Fig. 1.)

Material: 11149, a proximal caudal vertebra.

Remarks: The single caudal vertebra is that of a plethodont salamander approximately the size of *Plethodon glutinosus.* It is not *Cryptobranchus.*

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Family: Salamandridae

Diemictylus cf. *viridescens*—Red-spotted Newt

Plethodon cinereus, Peterson 1926, p. 251

Material: 11150, 8 vertebrae; 11151, 2 vertebrae.

Remarks: These vertebrae are opisthocoelus, with a high neural crest, and are in all respects similar to those of *D. viridescens* living in the area today.

Order: SALIENTIA

Family: Bufonidae

Bufo cf. *americanus*—American Toad

Rana catesbeiana, Peterson 1926, p. 252

Material: 11133, ilia and limb bones; 11143, three very small ilia.

Remarks: No. 11133 includes the ilia and limb bones of what appears to be one individual. In size they are larger than the similar bones in most recent *B. americanus,* but they still fall within the expected size range.

Family: Ranidae

Rana sp.—Frog

Material: 11138, 1 sacral vertebra; 11139, 8th and 9th vertebrae; 11141, 2 sacral vertebrae; 11147, 1 ilium, an 8th vertebra, and 1 sacral vertebra.

Remarks: The bones that Peterson referred to *Rana* are the ones here referred to *Bufo*. No. 11139 is of interest in having centra of these two vertebrae solidly fused, while the zygapophyses are not fused. The sacral vertebrae are very close in appearance to those of *Rana pipiens.*

CLASS: REPTILIA

Order: TESTUDINATA

Family: Testudinidae

Clemmys insculpta, Peterson 1926, pp. 253-254—Wood Turtle

Material: 11065 is the right hyoplastron of a mature *C. insculpta.* Catalogued under the same number is a fragment of a neural that in size and thickness could also be of this species.

Order: SQUAMATA

Suborder: Sauria

Eumeces anthracinus, Peterson 1926, pp. 252-253 (Fig. 2.)

Remarks: Peterson referred two vertebrae, 11311 and one "fragment of a bony plate" to this genus and species. The two vertebrae are small mid-body vertebrae of a salientian, while the "bony plate," 11313 is a fragment of a fossil bryozoan that had weathered out of the limestone walls of the cave. No lizard remains have been found in this collection nor have they been found in the extensive collections from the Pleistocene deposit in the New Paris sinkhole, although both *Sceloporus* and *Eumeces* occur in this valley today.

Suborder: Serpentes

Family: Colubridae

Material: *Storeria* sp.—Brown Snake, 11051, 19 vertebrae.
Thamnophis cf. *sirtalis*—Common Garter Snake, 11321, 15 vertebrae; 11322, 1 right maxilla.

Thamnophis sirtalis, Peterson 1926, p. 253

Thamnophis sp. Gilmore, 1938, p. 69

Heterodon, sp., Hognose Snake, 11177, 1 broken vertebra.

Diadophis sp., Ringneck Snake, 11178, 1 vertebra.

Carphophis sp., Worm Snake, 11351, 1 vertebra.

Lampropeltis cf. *doliata,* Milk Snake, 11513, 9 vertebrae of a very young individual.

Family: Crotalidae

Crotalus sp., Rattlesnake, 11514, 1 vertebra of a small individual.

Remarks: No attempt was made to assign specific names to these specimens. The vertebrae referred to *Thamnophis* compare in all details with mature *T. sirtalis.* In the lot, as examined by Gilmore (1938), there were "about 34" vertebrae; of these, I have separated 15 that resemble *sirtalis* and another group of 37 (11176) that, while Natricinae, could be either *Natrix* or *Thamnophis.* Today these two genera are represented in western Pennsylvania by three species each. Examination of recent skeletal material of these shows a wide range of both individual and ontogenetic variation.

Of interest in this collection is the presence of *Carphophis,* a snake of southern affinities, that today reaches the northern limits of its range in Pennsylvania. This small snake is such an active burrower that its presence in this material does not necessarily indicate that it occurred there during the Pleistocene. More likely it entered the fissure and became trapped in some more recent period.

All of the genera recovered occur today in the general area around Frankstown. Reptiles and amphibians are relatively small, and there is the possibility that some, or all of these, could have worked their way into this fissure at a later period than that when the large Pleistocene mammals became trapped. It is noteworthy that, with the exception of *Carphophis,* all of the genera reported here have ranges today that extend into Canada.

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